

ABSTRACT OF THE DISCLOSURE

An encryption mechanism tightly-couples hardware data encryption functions with software-based protocol decode processing within a pipelined processor of a programmable processing engine. Tight-coupling is achieved by a micro-architecture of the pipelined processor that allows encryption functions to be accessed as a novel encryption execution unit of the processor. Such coupling substantially reduces the latency associated with conventional hardware/software interfaces.

2025 RELEASE UNDER E.O. 14176